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09/606,884	06/29/2000	Xiangxin Bi	2950.32US03	6843

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EXAMINER

CHANEY, CAROL DIANE

ART UNIT	PAPER NUMBER
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1745

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/606,884
Filing Date: June 29, 2000
Appellant(s): BI ET AL.

Peter Dardi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 26 March 2004.

(1) *Real Party in Interest*

(2) *Related Appeals and Interferences*

A statement identifying the real party in interest is contained in the brief.

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

This appeal involves claims 47-53.

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

The rejection of claims 47-52 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5549880	KOKSBANG	8-1996
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(10) Grounds of Rejection

Claims 47-52 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Koksang, US Patent 5,549,880 for reasons set forth in the office action mailed 21 April 2003. The rejection is repeated below for convenience.

Claims 47-52 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Koksang, US Patent 5,549,880 for reasons of record.

Koksang discloses secondary lithium batteries comprising a lithiated vanadium oxide cathode active material, a lithium metal anode, and either a polymer electrolyte separator or a solid electrolyte separator. (Note column 5, line 60-column 6, line 3 and column 6, lines 12-35.) The vanadium oxide particles are "in the form of a fine powder having a surprisingly small particle size on the order of 0.1 to 5 microns." (Note column 2, lines 58-61.)

(11) Response to Argument

Appellants' independent claim 47 is directed to a cathode composition comprising vanadium oxide particles "having an average particle diameter from about 5 nm to about 500 nm and a binder." Koksang discloses secondary lithium batteries


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comprising a cathode composition which includes lithiated vanadium oxide and a binder. The binder includes polyethylene oxide, polyethylene glycol diacrylate and trimethyl polyetheylene oxide. (Note column 6, lines 25-35.) The vanadium oxide particles disclosed by Koksbang are "in the form of a fine powder having a surprisingly small particle size on the order of 0.1 to 5 microns." (Note column 2, lines 58-61.) This range of sizes, 0.1 microns to 5 microns, or 100 nm to 5000 nm, overlaps with the particle size range of "about 5 nm to about 500 nm" claimed by the appellants. Appellants assert Koksbang does not anticipate appellants' claims because the Koksbang reference does not expressly disclose that the particle sizes recited are average particle diameters. In contrast, the examiner interprets the sizes disclosed by Koksbang as describing a range of *average* particle sizes or diameters. Appellants argue the Koksbang patent at column 4, lines 49-67 describes a single set of reaction conditions for the production of lithium vanadium oxide, and therefore the size range 0.1 to 5 microns describes a single product and cannot describe a range of averages. However, the Koksbang "Example" describes at least two methods of obtaining vanadium pentoxide, (see Koksbang, column 4, line 20 and column 4, lines 27) and describes a range of reaction times (one to three hours), a range of temperatures and typical reaction color changes. (See Koksbang, column 4, lines 56-67.) Thus, it appears the "Example" described by Koksbang is the summary of a plurality of synthesis reactions, and therefore it is reasonable to interpret 0.1 microns to 5 microns (100 nm to 5,000 nm) disclosed by Koksbang a range of *average* particle sizes, which clearly overlaps with appellants' claims.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Carol Chaney
Primary Examiner
Art Unit 1745

December 13, 2004

Conferees

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